

INTERLOCKED ARMORED POWER CABLE 2400V (5000V*), NON-SHIELDED ETHYLENE-PROPYLENE RUBBER INSULATION (EPR) TYPE MV-105 OR MC, MULTI-CONDUCTOR

SCOPE:

This specification covers Aetna Insulated Wire's standard construction for multi-conductor non-shielded power cables insulated with ethylene-propylene rubber (EPR), the insulated conductors cabled with a ground wire and the assembly encased in interlocked armor, with a protective jacket overall.

*Note: NEC 2005 no longer recognizes non-shielded 5000V construction and only 2400V non-shielded in the constructions described herein.

PRODUCT SPECIFICATIONS AND RATINGS:

- i) National Fire Protection Association (NFPA) 70: National Electric Code (NEC)
- ii) Underwriters Laboratories 1072 for Medium Voltage Power Cables
- iii) ICEA S-96-659/NEMA WC71 Nonshielded 2001V - 5KV Cables
- iv) See individual product sheets for specific listings and ratings.

APPLICATION:

All cables produced to this specification are recognized by the NEC as 2400V non-shielded cable, Type MC and Type MV and are suitable for use as described in the code. The cables are rated for continuous operation at 105°C, for emergency overload at 140°C and for short circuit at 250°C. The cables meet the requirements for application in NEC Class I and II, Div 2 and Class III, Div 1 and 2, Hazardous Locations. The cables are intended for use in industrial locations where the protection of steel or aluminum armor is necessary. The cables may be used in wet or dry applications, installed in racks, trays or aurally. These cables have an overall jacket and can be direct buried and buried in concrete.

CONSTRUCTION DATA:

Conductors - The conductor consists of uncoated soft, copper strands meeting the requirements of ASTM B3. Unless otherwise specified the conductor shall be supplied as Class B compact per ASTM B496.

Conductor Shield - The conductor shielding consists

of an extruded semi-conducting layer meeting the requirements of the governing specifications above.

Insulation - The insulation is ethylene-propylene rubber (EPR) extruded concentrically over the conductor to the wall thickness as specified in the governing specifications listed and as shown on the individual product specification sheets.

Conductor Coding - Phase identification is provided by a printed color stripe on each insulated conductor (red, black, blue).

Ground Wire - One stranded bare copper ground wire will be located in one of the outer interstices.

Assembly - Conductors and ground wire are cabled together with a left hand lay and suitable fillers to make the cable round. A binder tape is applied.

Armor - Over the taped assembly there is an interlocking armor of either aluminum or galvanized steel.

Jacket - A protective sunlight and ozone resistant jacket of polyvinyl chloride (PVC) or chlorinated polyethylene (CPE) is extruded for a tight fit over the interlocked armor.

AVAILABLE OPTIONS:

- a) Aetna 3742 non-halogen, flame resistant, low smoke, low corrosion, non toxic jacket.
- b) Four conductor cables.
- c) Customized ground wires – insulated grounds – multiple grounds
- d) (-40°C) PVC jacket
- e) Linear Low Density jackets